

What I claim is:

1 1. In a communications environment where multiple instances of diverse access
2 protocols share a communications media, where it is desired that transmissions from one
3 instance not collide with transmissions from another instance, and each instance of an
4 access protocol has the ability to restrict access to the media for all stations in that
5 instance practicing that protocol from a set of stations in that instance, and the
6 stations having the ability to restrict access in each instance can all communicate with the
7 other stations able to restrict access, wherein a method of permitting interoperability of
8 the instances of the access protocols includes the steps of:

9 assigning each instance of each access protocol to separate
10 phases occurring in allocated time periods;

11 communicating the allocated time periods for each protocol instance to the
12 stations having the ability to restrict traffic for that protocol instance;

13 restricting access of stations in each protocol instance to only those time
14 periods assigned to that protocol instance.

1 2. The method of claim 1, where:

2 using 802.11 DCF in the access protocol for at least one of the phases;

3 enabling the stations transmitting in this phase with an ability to restrict
4 access to 802.11 AP's; and

5 restricting access in other phases by stations transmitting in this phase by having 802.11
6 APs trigger the transmission of spoofing frames with duration fields set to prevent access
7 by 802.11 stations to the medium in other phases.

1 3. The method of claim 2, including a step of:

2 practicing the HIPERLAN/2 access protocol in HIPERLAN/2 stations in at least one of
3 the phases.

1 4. The method of claim 2, including a step of:

2 assembling the spoofing frames transmitted from an 802.11 RTS frame transmitted by the
3 APs, followed by an 802.11 CTS frame transmitted by 802.11 stations.

1 5. The method of claim 2, including a step of:
2 assembling the spoofing frames transmitted from an 802.11 RTS frame
3 transmitted by the APs, followed by an 802.11 CTS frames transmitted by 802.11
4 stations, followed by other CTS frames transmitted by APs.

1 6. The method of claim 2, including a step of:
2 where the spoofing frames transmitted consist of a single 802.11 CTS frame transmitted
3 by each of the APs.

1 7. The method of claim 2, including a step of:
2 assembling the spoofing frames transmitted from a single 802.11 data frame transmitted
3 by each of the APs.

1 8. The method of claim 2, including a step of:
2 arranging start times of the phases to be on average periodic in nature, allowing a super-
3 frame structure to be defined.

1 9. The method of claim 2, including steps of:
2 predetermining start and end times of at least one of the phases; and
3 making the start and end times known to all stations needing to restrict access during that
4 phase so that no communications is required between stations restricting access to the
5 media for that phase.

1 10. In a communication environment in which access ports of systems are
2 individually operative at overlapping frequencies in one of two active operative WLAN
3 systems each operating in a common channel each under a different controlling standard,
4 wherein a method of permitting interoperability of the two systems includes steps of:
5 establishing a superframe within which contention is substantially eliminated and
6 resolved by;
7 limiting each system to separate phases of allocated defined contention periods for
8 differing;
9 selecting contention periods to accommodate variants of operating standards of the
10 operative WLAN systems; and
11 preventing access ports of one standard from transmitting during time periods allotted to
12 access ports of another standard for transmission.

1 11. The method of claim 10, including a step of:
2 establishing transmission for one of the two WLAN systems during a contention period
3 of the other WLAN.

1 12. The method of claim 11, including a step of:
2 separating 802.11 CFP intervals form H/2 MAC-frame intervals by a spoofing/blocking
3 frame sequence.

1 13. The method of claim 12, including a step of:
2 adding additional beacons in an 802.11 interval to prevent jitter.

1 14. The method of claim 13, including a step of:
2 ending a contention free period for 802.11 after completion of HIPERLAN/2
3 transmissions.

1 15. The method of claim 14, including a step of:
2 synchronizing super-frames by use of a synchronizing beacon.